

Notice of Allowability

Application No.

10/081,220

Examiner

Russ Guill

Applicant(s)

JORDAN ET AL.

Art Unit

2123

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to an amendment filed August 4, 2006.
2. ☒ The allowed claim(s) is/are 1-28, 37-39, 41-44, 46-48 and 50-69.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

EXAMINER'S AMENDMENT

1. As recited in the previous Office Action, the Examiner would again like to thank the Applicant for the well-presented response, which was useful in the examination process. The Examiner appreciates the effort to perform a thorough analysis of the Office Action, and make appropriate arguments and amendments.
2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Kent Sieffert on August 18, 2006.

The claims have been amended as follows:

Claim 1, line 10, the words "brackets; and" have been replaced with the word --brackets;--.

Claim 1, line 14, the words "prescription data." have been replaced with the words --prescription data; and displaying the selected one or more predefined and existing orthodontic brackets.--.

Claim 55, line 14, the words "brackets; and" have been replaced with the word --brackets;--.

Claim 55, line 18, the words "prescription data." have been replaced with the words --prescription data; and displaying the selected one or more predefined and existing orthodontic brackets.--.

Allowable Subject Matter

3. Claims 1 - 28, 37 - 39, 41 - 44, 46 - 48 and 50 - 69 are allowed over the prior art of record.

4. The following is an examiner's statement of reasons for allowance:

5. Regarding claim 1, while Lemchen (U.S. Patent Number 5,011,405) teaches providing tooth/arch model data, receiving from a user prescription data representative of user-specified desired final position for one or more teeth of the defined three-dimensional maloccluded tooth/arch model, providing bracket data representative of one or more parameters defining a plurality of predefined and existing orthodontic brackets, selecting one or more of the plurality of predefined and existing orthodontic brackets for use in moving one or more teeth of the defined three-dimensional maloccluded tooth/arch model to the user-specified desired final positions based on at least the prescription data, and Sachdeva (U.S. Patent Number 6,736,638) teaches executing bracket selection software to select one or more of a plurality of predefined and existing orthodontic brackets, and Taub (U.S. Patent Number 6,739,869) teaches presenting a user interface, none of these references taken either alone or in

combination with the prior art of record teaches a computer-implemented method of orthodontic appliance selection, specifically including, "defining a three-dimensional maloccluded tooth/arch model using the tooth/arch model data as a function of patient information", in combination with the remaining elements and features of the claimed invention. It is for these reasons that the Applicant's invention defines over the prior art of record.

6. Regarding claim 37, while Taub (U.S. Patent Number 6,739,869) teaches means for recognizing tooth/arch model data for use in defining a three-dimensional maloccluded tooth/arch model, means for recognizing bracket data representative of one or more parameters defining a plurality of predefined and existing orthodontic brackets, means for causing the display of a representation of the final tooth positions for one or more teeth of the defined three-dimensional maloccluded tooth/arch model, means for causing the display of the selection of the one or more of the plurality of orthodontic brackets, means for causing the display of a representation of one or more teeth of the defined three-dimensional maloccluded tooth/arch model in positions based on bracket data representative of the selected one or more of the plurality of predefined and existing orthodontic brackets, and Lemchen (U.S. Patent Number 5,011,405) teaches defining prescription data representative of desired final tooth position for one or more teeth of the defined three-dimensional maloccluded tooth/arch model, representation of the desired final tooth positions, user defined desired final

positions represented by prescription data, and Sachdeva (U.S. Patent Number 6,736,638) teaches means for executing a computer-implemented bracket selection process for selection of one or more of a plurality of predefined and existing orthodontic brackets that move the one or more teeth of the defined three-dimensional maloccluded tooth/arch model at least close to, but not necessarily exactly to, the desired final positions, none of these references taken either alone or in combination with the prior art of record teaches a computer readable medium tangibly embodying a program executable for use in selection of orthodontic appliances, specifically including, "user interface means for allowing a user to define a three-dimensional maloccluded tooth/arch model as a function of patient information", in combination with the remaining elements and features of the claimed invention. It is for these reasons that the Applicant's invention defines over the prior art of record.

7. Regarding claim 44, while Lemchen (U.S. Patent Number 5,011,405) teaches providing tooth/arch model data for use in defining a three-dimensional maloccluded tooth/arch model, allowing a user to define prescription data representative of desired final tooth positions for one or more teeth of a defined three-dimensional maloccluded tooth/arch model, providing bracket data representative of one or more parameters defining a plurality of predefined and existing orthodontic brackets, selecting one or more of the plurality of predefined and existing orthodontic brackets for use in moving one or more teeth of the defined three-dimensional maloccluded tooth/arch model to

the desired final positions based on at least the prescription data, and Sachdeva (U.S. Patent Number 6,736,638) teaches executing bracket selection software to select one or more of a plurality of predefined and existing orthodontic brackets, and Taub (U.S. Patent Number 6,739,869) teaches providing a user interface, and a database, none of these references taken either alone or in combination with the prior art of record teaches a computer-implemented method of orthodontic appliance selection, specifically including, "providing a user interface for allowing a user to define a three-dimensional maloccluded tooth/arch model as a function of patient information", "displaying a representation of the desired final tooth position for one or more teeth of the defined three-dimensional maloccluded tooth/arch model based on the prescription data; displaying a representation of one or more teeth of the defined three-dimensional maloccluded tooth/arch model in positions based on bracket data representative of the selected predefined and existing orthodontic brackets; overlaying the representation of the desired final tooth positions for one or more teeth of the defined three-dimensional maloccluded tooth/arch model and the representation of one or more teeth of the defined three-dimensional maloccluded tooth/arch model in positions based on bracket data; and modifying the selection of one or more of the plurality of predefined and existing orthodontic brackets from a database based on the overlaid representations", in combination with the remaining elements and features of the claimed invention. It is for these reasons that the Applicant's invention defines over the prior art of record.

8. Regarding claim 55, while Lemchen (U.S. Patent Number 5,011,405) teaches providing tooth/arch model data representative of at least one or more teeth, providing prescription data representative of user specified desired final positions for one or more teeth of the defined maloccluded tooth/arch model, providing archwire data representative of one or more parameters defining a plurality of predefined and existing orthodontic archwires, providing bracket data representative of one or more parameters defining a plurality of predefined and existing orthodontic brackets, selecting one or more of the plurality of predefined and existing orthodontic brackets for use in moving one or more teeth of the defined three-dimensional maloccluded tooth/arch model to the desired final positions based on at least the prescription data, and Sachdeva (U.S. Patent Number 6,736,638) teaches executing bracket selection software to select one or more of a plurality of predefined and existing orthodontic brackets, and Taub (U.S. Patent Number 6,739,869) teaches selecting at least one of the plurality of predefined and existing archwires for use in moving one or more teeth of the defined three-dimensional maloccluded tooth/arch model to the desired final positions, none of these references taken either alone or in combination with the prior art of record teaches a computer-implemented method of orthodontic appliance selection, specifically including, "defining a three-dimensional maloccluded tooth/arch model using the tooth/arch model data as a function of patient information", in combination with the remaining elements and features of the claimed invention. It is for these reasons that the Applicant's invention defines over the prior art of record.

9. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Russ Guill whose telephone number is 571-272-7955.


The examiner can normally be reached on Monday - Friday 10:00 AM - 6:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Rodriguez can be reached on 571-272-3753. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300. Any inquiry of a general nature or relating to the status of this application should be directed to the TC2100 Group Receptionist: 571-272-2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

RG

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8/21/02